

A common MISCONCEPTION is that a beacon, when used alone or in conjunction with a speed or warning sign, will slow down traffic. Drivers tend to drive at a speed which they perceive to be safe based on their surroundings, such as width of pavement, roadway features (i.e. curves) and type and number of developments.

ENGINEERING STUDY

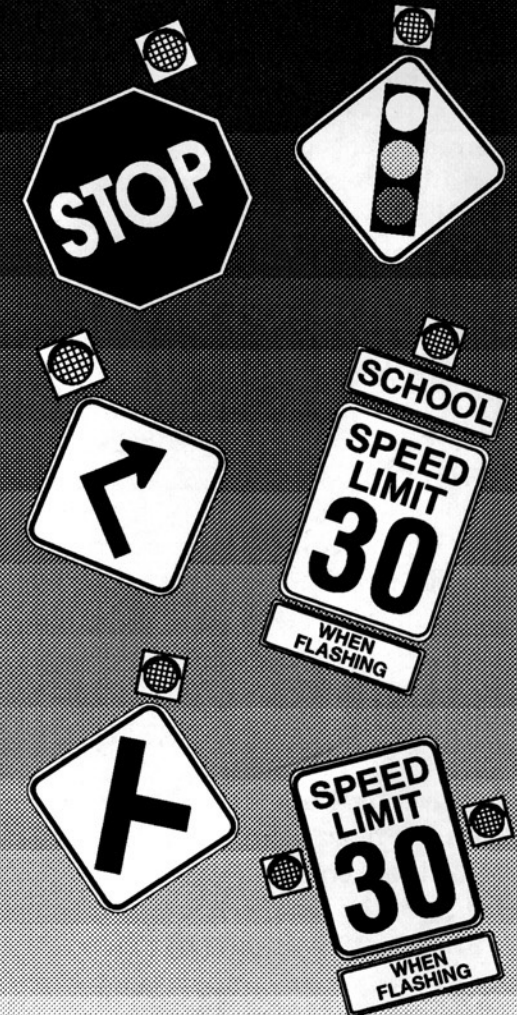
Before deciding to install a new beacon or remove an existing beacon, an engineering study is conducted. The traffic engineering study includes: reviewing the location; its accident history; roadway features, such as type of pavement, numbers of lanes, lane width; vehicle speeds; vehicle volumes; number of pedestrians and or school children; and sight restrictions.

IN SUMMARY

When beacons are properly located, they serve a useful function. When they are used improperly and installed at locations where they are not warranted, they soon lose much, if not all, of their effectiveness. More seriously, improper usage greatly reduces the effectiveness of other beacons installed in areas where there is a real need.

MHTD strives for standardization of traffic control, thus meeting driver expectations. When drivers see beacons at locations which do not have any unusual characteristics, beacons begin to lose their effectiveness in the minds of drivers. It is MHTD's intent that when a driver encounters a traffic control device, he or she will know what to expect because of previous encounters with similar devices.

FLASHING BEACONS



MISSOURI HIGHWAY AND
TRANSPORTATION DEPARTMENT
Technology Transfer Assistance Program

Flashing beacons are frequently requested by communities in the belief that they will reduce vehicle speeds and/or improve the safety of a location. Unfortunately, this is not necessarily the case. The following discussion of flashing beacons is offered in the interest of broader public understanding of what beacons can and can not do, and what factors must be considered before they are installed or allowed to remain in operation.

TYPES OF BEACONS

There are basically two types of beacons:

1. Sign beacons - These beacons are mounted on a STOP sign, speed limit sign to advise of change, or warning sign to supplement the sign message. The beacons call attention to an unusual intersection or condition.
2. Overhead beacons - These beacons are intended to be installed over a roadway where a traffic study indicates the intersection has an unusual traffic or physical condition.

The comments in this pamphlet apply to both types of beacons.

USE AND MISUSE OF BEACONS

Beacons serve a useful purpose where the flashing light is used to alert drivers of UNUSUAL CONDITIONS that are not readily apparent, such as obstructions in the roadway, uncommon roadway conditions, narrow bridges, or unusual conditions hidden from the motorists' view. At intersections, the Manual on Uniform Traffic Control Devices states: "Beacons are intended for use....where traffic or physical condition do not justify conventional traffic signals but where high accident rates indicate a special hazard."

For any beacon to be effective, it **MUST COMMAND THE RESPECT OF THE PUBLIC**. In other words, immediately after seeing the beacon, the driver must **CONSISTENTLY** see an unusual condition which is being singled out for attention. Furthermore, the condition **MUST** be viewed by the motorist as serious enough to justify having been alerted.

When beacons are used improperly and installed at locations where they are not warranted, they soon lose much of their effectiveness. They simply **CEASE TO COMMAND THE RESPECT OF THE DRIVERS**. After

continually being alerted to a condition which seldom, if ever, appears unusual, drivers actually stop "seeing" the beacon. When this happens, beacons which are truly needed may well be disregarded by drivers who have become conditioned to believe that beacons are just "window dressing." Because of this normal human reaction, even one improper installation greatly reduces the effectiveness of essential beacons.

In school zones, beacons may also give pedestrians, children and their parents a false sense of security. Quite often communities request beacons in the belief that they will improve crossing safety, rather than attempting to solve the underlying problems. For example, there may be no established route to and from school, no pedestrian safety program, or no adult crossing guards. Some parents and school districts believe the entire responsibility for crossing safety lies in the traffic control devices and not in themselves or the children. It must be realized that just because a beacon is in place, children will not automatically be more visible to drivers and that choosing an appropriate time to cross is the pedestrian's responsibility.